at1113exam: Expand, factor, and solve quadratics (v214)

1. Expand the following expression into standard form.

$$(7x + 9)^2$$

2. Expand the following expression into standard form.

$$(5x + 9)(5x - 9)$$

3. Expand the following expression into standard form.

$$(4x + 5)(6x - 7)$$

4. Solve the equation.

$$(8x + 7)(9x + 2) = 0$$

5. Solve the equation.
$$12x^2 - 8x - 19 \ = \ 5x^2 - 2x - 3$$

6. Solve the equation with factoring by grouping.
$$15x^2 - 20x + 18x - 24 \ = \ 0$$

7. Factor the expression.
$$36x^2 - 49$$

8. Factor the expression.
$$x^2 - 9x + 20$$